

CYSTEINE-DEPLETED MUTEINS  
OF BIOLOGICALLY ACTIVE PROTEINS

Abstract

62 5 Muteins of biologically active proteins such as IFN- $\beta$  and IL-2 in which cysteine residues that are not essential to biological activity have been deleted or replaced with other amino acids to eliminate sites for intermolecular crosslinking or incorrect intramolecular disulfide bridge formation. These muteins 10 are made via bacterial expression of mutant genes that encode the muteins that have been synthesized from the genes for the parent proteins by oligonucleotide-directed mutagenesis.